

U.S. Serial No. 10/593,990
Response to Office Action dated May 10, 2011

Patent
CU-5127

REMARKS

Preliminary comments

Claims 1-141 were filed in the application. Claims 2-4, 6, 29, 32 35-36, 41-46, 48-49 and 57-141 are cancelled. Claims 1, 5, 7-28, 30-31, 33-34, 37-40, 47, 50-56 are currently amended and remain in the application for further examination.

Claim Objections

Claims 12-13, & 52 have been amended to be dependent on claim 1.

Claims 14-15 have been amended to be dependent on claim 1.

Claim 18 has been amended to be dependent on claim 5.

Claim 26 has been amended to replace the expression "elongated bored" by "elongated bores".

Claim 57 has been cancelled and objections thereto are now moot.

Claim Rejections – 35 USC § 102

Claims 1 & 57 have been rejected as being indefinite.

Claim 1 was amended to now be drawn to a microfluidic device comprising a microfluidic flow cell and substrate which are removably interfaced. Withdrawal of the rejection is respectfully requested.

Claim 57 has been cancelled and objections thereto are now moot.

Claim 18 was objected to as being unclear. Applicant contends that claim 18 does not contain the wording to which the examiner objected to and it is respectfully requested that this objection be withdrawn.

Claim Rejections – 35 USC § 102

Claims 1, 7-10, 12, 14, 29, 23, 31-36, 47 & 57-58 stand rejected under 35 U.S.C. 102(b) as being anticipated by Wang et al. US Patent 6,878,255.

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Claim 1 has been amended to now claim a microfluidic device comprising a substrate and microfluidic flow cell that is interfaced with this substrate (e.g. a slide). The substrate is hydrophilic and has a (generally planar) surface for receiving the microfluidic flow cell thereon. The flow cell and the substrate are merely interfaced without any adhesive therebetween so that the microfluidic cell can easily be removed when the reaction is over.

The claimed device provides for a reaction to take place between the interfaced microfluidic flow cell and substrate. When the reaction is complete, the microfluidic flow cell can be easily removed from the substrate allowing the reaction product to remain on the substrate so as to be analyzed. Therefore, the microfluidic flow cell is as removable from the substrate as to not disturb the reaction product which remains on the substrate. The substrate (e.g. a slide) can be then simply be placed as is under a microscope, a scanner or like instrument thereby allowing the reaction product to be analyzed.

The foregoing amendment is fully supported by the disclosure as filed including the Figures.

The reaction chamber of claim 1 can now be given patentable weight as the claims are drawn to a device which comprises a microfluidic flow cell having a reaction portion which when interfaced with the substrate forms a reaction chamber. The substrate is therefore a platform for the reaction product allowing it to be analyzed when removing the flow cell.

Wang does not teach a reaction chamber formed between microfluidic flow cell removably positioned on a substrate that when after the reactants have been allowed to flow into the reaction chamber to provide a reaction the product, the microfluidic flow cell can be removed and the reaction product can remain on the substrate to be analyzed.

As such, it is believed that claim 1 as amended is now novel in view of Wang et al. and thus patentable. Withdrawal of the rejection is respectfully solicited.

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Claims 5, 7-28, 30-31, 33-34, 37-40, 47, 50-56 were amended to reflect amendments to claim 1. Since the foregoing claims remain in the application and are all ultimately dependent on claim 1, these claims are by the same token novel in light of Wang et al. and thus patentable. Withdrawal of the rejection is solicited.

Claim Rejections – 35 USC § 103

Claims 5, 16-18, 22, 27 28 & 50-56 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Wang et al. in view of Mathes US 2002/0068357.

Claims 11, 13, 15, 21, 24, 25, 26 & 39 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Wang et al.

Claims 37-40 & 42-44 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Wang et al. in view of Chen et al. US 2003/0087292.

Claims 45 & 46 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Wang et al. in view of Guigan US Patent 4,788,154.

Applicant respectfully contends that since claim 1 is not rejected on the basis 35 U.S.C. 103(a) in view of the foregoing cited art, and as such is now in compliance with both 35 U.S.C. § 102(b) and 35 U.S.C. 103(a) then the remaining claims of the application, namely claims 5, 7-28, 30-31, 33-34, 37-40, 47, 50-56 are also in compliance with 35 U.S.C. 103(a) and patentable over the foregoing cited art as they are all ultimately dependent on claim 1.

Therefore, it is respectfully requested that the current rejections be withdrawn.

Conclusion

In light of the above amendments and arguments this application is believed to be in full condition for allowance. The Examiner is invited to

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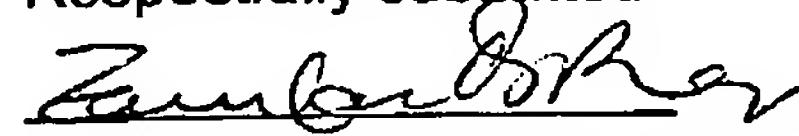
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contact the undersigned attorney in order to resolve any unresolved issues.

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DATE
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Respectfully submitted



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